

IN THE CLAIMS

1. (Currently Amended) Method for the purification of a molten metal containing one or more foreign elements, ~~characterised in that~~ comprising:

cooling the molten metal ~~is cooled~~ to a eutectic temperature to simultaneously form purified metal crystals and crystals containing at least one foreign element, and ~~in that~~ separating at least some of the crystals containing at least one foreign element ~~are separated~~ from the purified metal crystals by using a solid-solid separation technique.

2. (Currently Amended) Method according to claim 1, wherein prior to the application of the solid-solid separation technique at least some of the purified metal crystals and the crystals containing at least one foreign elements element are substantially simultaneously separated from substantially the total amount of molten metal.

3. (Currently Amended) Method according to claim 1-~~or~~2, wherein the solid-solid separation technique is executed by separating the purified metal crystals and the crystals containing at least one foreign element into multiple fractions, wherein the ratio of the concentration of the purified metal crystals and the concentration of the crystals containing at least one foreign element in one of the fractions is higher than the ratio thereof in the molten metal.

4. (Currently Amended) Method according to claim 1-~~or~~2, wherein at least some of the crystals containing at least one foreign element are separated from substantially the total amount of molten metal containing purified metal crystals.

5. (Original) Method according to claim 3, wherein the solid-solid separation is executed using centrifugal force.
6. (Original) Method according to claim 3, wherein the solid-solid separation is executed using an electromagnetic field.
7. (Original) Method according to claim 3, wherein the solid-solid separation is executed using a floatation technique.
8. (Currently Amended) Method according to ~~any of claims 5, 6 or 7~~ claim 5 additionally comprising, after the solid-solid separation step, a subsequent solid-liquid separation step.
9. (Original) Method according to claim 4, wherein a layer of salt is brought into contact with a layer of the molten metal containing both the purified metal crystals and crystals containing at least one foreign element, and wherein means are used to transport at least some of the crystals containing at least one foreign element into the salt layer and at least some of the purified metal crystals are separated from the molten metal.
10. (Currently Amended) Method according to ~~any of the preceding claims~~ claim 1, wherein the molten metal is aluminium.
11. (Currently Amended) Method according to claim 10, wherein the foreign element(s) comprise one or more of iron, silicon, copper, manganese and magnesium.
12. (Currently Amended) Method according to ~~any of the preceding claims~~ claim 1, wherein the purified metal crystals and crystals containing at least one foreign element are formed and separated continuously.

13. (Currently Amended) Method according to ~~any of the preceding claims~~ claim 1, wherein the molten metal containing one or more foreign elements is subjected to a fractional crystallisation process and a solid-liquid separation technique before the remaining molten metal is cooled to a eutectic temperature to simultaneously form purified metal crystals and crystals containing at least one foreign element.

14. (Currently Amended) Method according to ~~any of the preceding claims~~ claim 1, wherein molten metal containing one or more foreign elements remaining after the solid-solid separation step is subjected to a fractional crystallisation process and a solid-liquid separation technique.

15. (Currently Amended) Method according to claim 14, wherein the molten metal containing one or more foreign elements remaining after the solid-liquid separation technique is ~~subjected to a process according to claim 1~~ cooled to a eutectic temperature to simultaneously form purified metal crystals and crystals containing at least one foreign element, and at least some of these crystals containing at least one foreign element, formed after the solid-liquid separation technique, are separated from the purified metal crystals by solid-solid separation.

16. (New) Method according to claim 6 additionally comprising, after the solid-solid separation step, a solid-liquid separation step.

17. (New) Method according to claim 7 additionally comprising, after the solid-solid separation step, a solid-liquid separation step.